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Growth promoting water dispenser - has cylinder attached to water mains with carbon dioxide and fertiliser cartridge

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Patent Details:

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DE 3730552	A		5		

Abstract (Basic): DE 3730552 A

A dispenser to supply water for watering and flowers in households and offices, which is saturated with CO₂ and liq. fertiliser, consists of a metal or plastic cylinder which is screwed to a water mains tap. It carries a screwed-on CO₂ cartridge which is opened when water flows and feeds the gas through fine bores in a stepped water channel. Near its end, a cartridge with liq. fertiliser feeds the liq. In the channel through a Pitot tube in the water channel.

ADVANTAGE - Both cartridges are dimensioned to be empty at the same time. If the fertiliser liq. is coloured, its end is a sign that both cartridges need renewing.

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Claims OF DE3730552:

1. Procedure for the fertilization pouring in households, business or such, with the casting water with CO₂ impregnated with fertilize open is enriched, whereby one lets water with the temperature and the pressure flow if necessary in each case out of a usual water pipeline by an impregnation and an enrichment zone, in the CO₂ and fertilization materials in each case from a O₂-DRUCKQUELLE and/or.

from a fertilizing off storage vessel directly by the water to be sucked in, by, the fact flowing by the zone, characterized that that is used at the same time fertilizing off itself as indicator means for the O₂-VERBRAUCH.

2. Verfahren according to requirement 1, by the fact characterized that

the output supply quantities of fertilizing off in the storage vessel and of CO₂ in the pressure source as a function of respective consumption per unit volume water are co-ordinated so that the two supply quantities are used up essentially at the same time.

3. Procedure according to requirement 1 or 2, by the fact characterized that the liquid fertilizing off one dyes or one mixes with pigment particles and one supplies by a storage vessel with at least a transparent wall range of the impregnation and enrichment zone.

4. Vorrichtung for implementing the procedure after one of the requirements 1 to 3, which a housing with one in a flexible separative element or a separator piston exhibits or such partitioned chamber, their first range to a usual water supply line over a shut-off valve or dgl.

and to its second range a O₂-DRUCKQUELLE with a discharge opening and a pressure reduction valve is connectable is connectable, and with which the housing exhibits a straight elongated flow channel, whose pre-determined entrance cross section at a channel end stands flowmoderately with the first chamber range in connection, which exhibits at least two cross section ranges following each other in the distance in direction of flow seen, at which itself the cross section opposite the entrance cross section gradate-like by stage width by 0,1 to 2 mm extended, which stand directly behind each stage over Öffnung with a cross section approximately equal the stage width with a O₂-GAS-VERTEILERKAMMER in free flow connection, those for their part with the second chamber range it is connected and which ends at the other end into a discharge

opening for O₂-IMPRAEGNIERTES water, and with which a storage vessel for liquid fertilizers is intended, which is connected with a sucking in tube, which flows in the channel druchstroemten by the water, by the fact characterized that as pressure source a small cartridge (4) of pre-determined small fuellvolumen and for the liquid fertilizer supply a storage vessel (16) it is intended, whose fuellvolumen stands in pre-determined relation to the fuellvolumen of the small cartridge (4) that the pre-determined relationship is so selected that the liquid fertilizer supply is used up with the O₂-VORRAT about at the same time, and that the storage vessel (16) exhibits a level indicator plant.

5. Device according to requirement 4, by the fact characterized that the storage vessel (16) exhibits a wall, which at least partly consists of transparent material to the level announcement.

6. Device according to requirement 5, by the fact characterized that the

liquid fertilizer is transferred with pigment materials colored or.

7. Device after one of the requirements 4 to 6, by the fact characterized that as O2-DRUCKQUELLE a one-way cap or a multi-path cartridge with a fuellvolumen is intended from 10 to 50 gram.